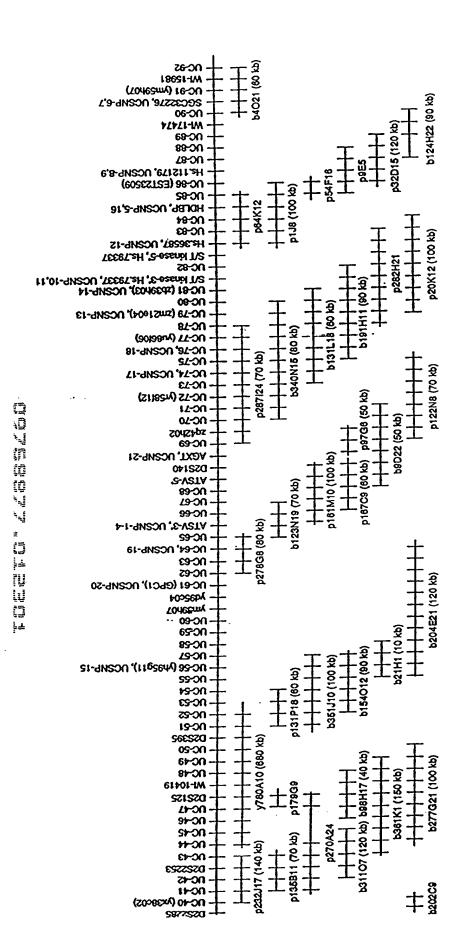
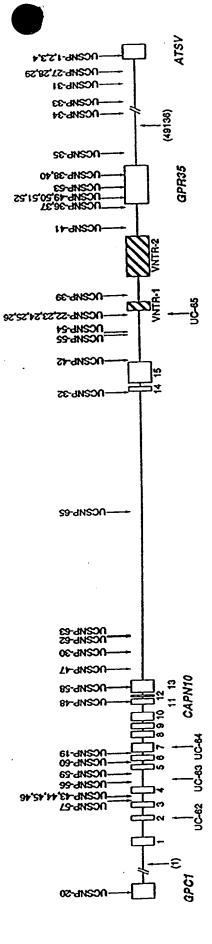
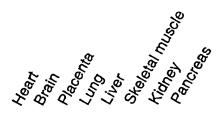


FIG. 1







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	GGCINHKDTFFQNPQYIFEVKKPEDEVLICIQQPFKRSTRREGKGENLAIGFDIYKVEENRQYRHHSIQHKAASSIYINSRSVFLRTDQPEGRYVIIPT 47	72 72
LÜ BÇAPNS BERPN6 BÇAPN3	GGCINHKDTFFQNPQYIFEVKKPEDEVLICIQQRPKRSTRREGKGENLAIGFDIYKVEENEQYRHHSL-QHKAASSTYINSRSVFLETDQPEGRYVIIPT 47 GGCYNNRDTFLQNPQYIFTVPEDGHKVIHSLQQKDLRTYRRHGRPDNYIIGFELFKVE	72 72 59 71
EAPNS BEAPNS BEAPNS BEAPNS BEAPNS	GCCINHKDTFFQNPQYIFEVKKPEDEVLICIQQRPKRSTRREGKGENLAIGFDIYKVEENRQYRHHSLQHKANSIYINSRSVFLRTDQPEGRYVIIPT 47 GCCINNRDTFFQNPQYIFTVPEDGH	72 72 59 71
EAPNS BEAPNS BEAPNS BEAPNS BEAPNS BEAPNS	GGCINHKDTFFQNPQYIFEVKKPEDEVLICIQQRPKRSTRREGKGENLAIGFDIYKVEENRQYRHHSLQHKAASSIYINSRSVFLRTDQPEGRYVIIPT 47 GGCTNRRDTFIQNPQYIFTVPEDGH	72 72 59 71 99
EAPNS MEAPNG MEA	GCCINKDTFFQNPQYIFEVKKPEDEVLICIQQRPKRSTRREGKGENLAIGFDIYKVEENEQYRHISL-QEKAASSTYINSRSVFLRTDQPEGRYVIIPT 47 GCCINKDTFIQNPQYIFTVPEDGH	72 72 59 71 99 87
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bçapns beapns beapns beapns beapns beapns reapns beapns	GCCINHKDTFFQNPQYIFEVKKPEDEVLICIQQRPKRSTRREGKGENLAIGFDIYKVEENRQYRHHSL-QHKAASSIYINSRSVFLRTDQPEGRYVIIPT 47 GCCINHRDTFLQNPQYIFTVPEDGH	72 72 59 71 99 87 89 71
PERMICAL PROPERTY OF THE PROPE	GCCINHKDTFFQNPQYIFEVKKPED ——EVLICIQQRPKRSTRREGKGENLAIGFDIYKVEENRQYRHHSL-QHKAASSIYINSRSVFLRTDQPEGRYVIIPT 47 GCCTNREDTFLQRPQYIFTVPEDGH	72 72 59 71 99 87 89 71
POTENTAL PROPERTY OF THE PROPE	GCCINHKDTFFQNPQYIFEVKKPEDEVILCIQQRPKRSTRREGKGENLAIGFDIYKVEENRQYRHHSL-QHKAASIYINSRSVFLRTDQPEGRYVIIPT 47 GCCTNREDTFLQRPQYIFTVPEDGH	72 72 59 71 99 87 89 71 30 32 79
PCTENS PC	GCCINHKDTFFQNPQYIFEVKKPEDEVILCIQQRPKRSTRREGKGENLAIGFDIYKVEENRQYRHHSL-QHKAASIYINSRSVFLRTDQPEGRYVIIPT 47 GCCTNREDTFLQRPQYIFTVPEDGH	72 72 59 71 99 87 89 71 30 32 79
POTENTAL PROPERTY OF THE PROPE	GCCINHEDTFFONPQYIFEVEKPED — EVILCIQQRPERSTREGEGENLAIGFDIYEVE——E—NEQYRHHSL—QHEMASSIYINSRSVFLRTDQPEGRYVIIPT 47 GCCYNREDTFLANPQYIFTVPEDGH — KVIHSLQQEDLRTYRRHGRPENNYIIGFELFEVE——B—NRRFRLHELYIQERAGTSTYIDHRTVFLSEYLKKGSYVLVFT 47 GCCRNFPDTFWINPQYRLSLLEEDD—DPDDSEV-ICSFLVALHQEDRREKDGRLG-ASLFTIGFAIYEVPEHHGRK-QHLQEDFFLANASBARSETYIDHREVSQRFELPPSEYVLVPS 55 GCCRNFPDTFWINPQYRLSLIEEDD—OPDDSEV-ICSFLVALHQEDRREKBRG-ANVILIGYALYEVP-DED—EKLIKUSFFIHAASBARSETFINLREVSDRFKLPPGEYILLPS 55 GCCRNFPATFWNPQFKIRLDETDDPDDYCDRES—GCSFVLALHQEDRREKBRG-ANVILIGYALYEVPEHLGQPAVILKRDFFLANASBARSEDFINLREVSTRFRLPPGEYILVPS 48 GCCRNFPATFWNPQFKIRLDETDDPDDYCDRES—GCSFVLALHQEDRRERERBG-EDHHITGFGIYEVPPEHLSQQTNIHLSKNFFLTRABERSDFINLREVSTRFRLPPGEYILVPS 48 GCCRNFPOTTWINPQFKIRLDETDDPDDYCDRES—GCSFVLALHQEDRRERERBG-EDHHITGFGIYEVPPEHLSQQTNIHLSKNFFLTRABERSDFINLREVSTRFRLPPGEYILVPS 48 GCCRNFSTWPTTWINPQFKIRLDEVDDQEEGTSEP—CCTVLLGLIQENRRERGREG—QGHLSIGTAVYQIPKELESHTDAHLGRDFFLGRQFSTCSSTYMALREVSTRVALPPGYLVVPS 48 GCCRNS—SGFFSNPRIWLRVSEPSEVYIAVLQRSRLHAADWGRARALWCDSHTSWSPASIPGRYQAWGLHLMKVEKRRVNLPRVLSMPPWAGTAGHAYDREVHLRCELSPGYTLAVPS 47 CCCRNS—SGFFSNPRIWLRVSEPSEVYIAVLQRSRLHAADWGRARALWCDSHTSWSPASIPGRYQAWGLHLMKVEKRRVNLPRVLSMPPWAGTAGHAYDREVHLRCELSPGYTLAVPS 47 TFEPHGEGEFILRVFTDVPSNCRELRLDEPPHT — — WALARGYPRVVTQITVHSABGLEKVY— 51 TFEPHGEGEFILRVFSDPNSCRELRLDEPPHT — — PKPTP—PDQETEDERFRALFQVAGGLEKEVITA 54 TFEPHQEADFCLRIFSEKAAITRUNDGRVDIDLP— — PKPTP—PDQETEDERFRALFQVAGGLEKEVITA 57 TFEPHQEADFCLRIFSEKAAITRUNDGRVDIDLP— — — PKPTP—PDQETEDERFRALFQVAGGLEKEVITA 57 TFEPHQEADFCLRIFSEKAAITRUNDGRVDIDLP— — — PKPTP—PDQETEDERFRALFQVAGGLEKEVITAR 57 TFEPHQEADFCLRIFSEKAAITRUNDGRVDIDLP— — — PKPTP—PDQETEDERFRALFQVAGGLEKEVITAR 57 TFEPHQEADFCLRIFSEKSAGTVELDDQIQANLP	72 72 59 71 99 87 89 71 30 32 79 48 72
POTENTS POT	GCCINHEDTFFONPQYIFEVEKPED — EVILICIQORPERSTEREGEGENLAIGFDIYEVE——E—NEQYRHESL—QHEMASSIYINSRSVFLETDQPEGRYVIIFT 47 GCCTNREDTFLONPQYIFTVPEDGH — EVINSLOQEDLETYRREGEREDNYIIGFELFEVE——E—NERFRIJHELYIQERAGTSTYIDHREVSQRFLPFSEYILVPS 47 GCCRNFPDTFWINPQYRLXLLEEDD—DPDDSEV-ICSTLVALMQEGRERIGHGA-ASLFTIGFAIYEVPREMEGR-QRLQEDFFLWASKARSETYIDHREVSQRFKLPFSEYILVPS 55 GCCRNFPDTFWINPQYRLXLLEEDD—DPDDSEV-ICSTLVALMQEGRRERERG-ANVLTIGVAIYECP—DED—ENLINEDFFLWASKARSETYIDHREVSQRFKLPFSEYILVPS 47 GCCRNFPATFWNPQFKILDETDDPDDYGGRES—GCSFVLALMQEGRRERERG-ANVLTIGVAIYECPPELWGQPAVHLKRDFFLWASKARSEDFFINLREVSTRFRLPPGEYILVPS 48 GCCRNFPATFWNPQFKILDETDDPDDYGGRES—GCSFVLALMQEGRRERERG-EDHHTIGFOIYEVPELWGQPAVHLKRDFFLWASKARSEDFFINLREVSTRFRLPPGEYILVPS 48 GCCRNFPGTTWINPQFKIHLDEVDEDQEEGTSEP—CCTVLLGLMQEGRRERGREG—CHMHTIGFOIYEVPEELSGQTNIHLSENFFLTWRERSDFFINLREVSTRFKLPPGEYILVPS 48 GCCLNFPGTTWINPQFKIHLDEVDEDQEEGTSEP—CCTVLLGLMQEGRRERGREG—CHMHTIGFOIYEVPEELSGQTNIHLSENFFLTWRERSDFFINLREVSTRFKLPPGEYILVPS 48 GCCRNN-SGFPSNPEFWLRVSEPSEVYIAVLQRSRLHAADMAGGARALWCDSHTSWSFASIFGRHYQAVGIHLMEVERRUNLPRVLSHPFWASTACHAYDREVHLRCELSPGYYLAVPS 47 GCCRNN-SGFPSNPEFWLRVSEPSEVYIAVLQRSRLHAADMAGGARALWCDSHTSWSFASIFGRHYQAVGIHLMEVERRUNLPRVLSHPFWASTACHAYDREVHLRCELSPGYYLAVPS 47 TFEPCHTGEFILLRYFIDVPSNCRELRLDEPPHT — DOMAIN IV OF T TFEPCHTGEFILLRYFIDVPSNCRELRLDEPPHT — C — WSILGGFPQLVTQVHVLGAAGLED—— 53 TFEPCHTGEFILLRYFISERKAITRONDGNVDLIP————————————————————————————————————	72 72 59 71 99 87 89 71 30 32 79 48 72 59
POTENTS POT	GCCINHKDTFFQNPQYIFEVKKPEDEVILCIQQRPKRSTRREGKGENLAIGFDIYKVEENRQYRHHSL-QHKAASIYINSRSVFLRTDQPEGRYVIIPT 47 GCCTNREDTFLQRPQYIFTVPEDGH	72 72 59 71 99 87 89 71 30 32 79 48 72 59
bearns	GCCINIKDTFFQNPQYIFEVKKPED — EVILCIQQRPKRSTRREGKGENLAIGFDIYKVEENRQYRHKSL-QHKAASSIYINSRSVFLRTDQPEGRYVIIFT 47 GCCTNREDTFLANPQYIFTVPEDGK — KVIMSLQQRDLRTYRREGREDNYIIGFELFKVEBNRRFRLHELYIQERAGTSTYIDTRTVFLSKYLKKGSYVLVFT 47 GCCRNFPDTFWINPQYRLXLLEEDODPDDSEV-ICSTLVALMQKBRRKDRILG-ASLFTIGFAIYEVPKENHGNK-QHLQKDFFLWASKARSKYTIDMREVSQRFKLPPSEYVIUPS 55 GCCRNFDTFWINPQYRLSLIEEDODPDDSEV-ICSTLVALMQKBRRKDRFLG-ASLFTIGFAIYEVPKENHGNK-QHLQKDFFLWASKARSKYTIDMREVSQRFKLPPSEYVIUPS 55 GCCRNFATFWNPQFKILDETDDPDDYGDRES-GCSFVLALMQKBRRERFRG-ANVLTIGVAIYECPDKDEKLINKDFFLWASKARSKYTIDMREVSGRFKLPPGEYVLVPS 49 GCCRNYPHTFWNPQFKILDETDDPDDYGDRES-GCSFVLALMQKBRRERRERFG-ANVLTIGVAIYECPDKDEKLINKDFFLWASKARSKYTIDMREVSTRFRLPPGEYVLVPS 49 GCCRNYPHTFWNPQFKILDETDDPDDYGDRES-GCSFVLALMQKBRRERRERFG-ANVLTIGVAIYECPDKDEKLINKDFFLWASKARSKYTIDMREVSTRFRLPPGEYVLVPS 49 GCCRNYPHTFWNPQFKILDETDDPDDYGDRES-GCSFVLALMQKBRRERRERFG-ANVLTIGVAIYECPDKDEKLINKDFFLWASKARSKYTIDMREVSTRFRLPPGEYVLVPS 49 GCCRNYPHTFWNPQFKILLDETDD-DDYGDRES-GCSFVLALMQKBRRERRERFG-ANVLTIGFAIYEVPEELSGQTNILLSKHFFLTWARSEDFFINLREVSTRFKLPPGEYVLVPS 48 GCCRNYPHTFWNPQFKILLDEDD-CCTVILIGLMQKNRRRQRRAG-CHAHTGFVIPFVEELSGQTNILLSKHFFLWASKARSLAPGGYVLVPS 48 GCCRNYPHTFWNPQFKILLDEDDGEEGTS-CCTVILIGLMQKNRRRQRRAG-CHAHTGFVIPFVEELSGTNALLGDFYGRASTRALLEGTTVAPSKRWALLPGQYLLVTS GCCRNYPHTFWNPQFKILLDEDDGEEGTS-CCTVILIGLMQKNRRRQRAG-CHAHTGFVIPFVEELSGTNALLGDTYVVIPKLASHTLAPGARGARALLEGTTVAPSKRWALLEGTTVANSKRELGTTVAPSKRWALLEGTTVAP	72 72 59 71 99 87 89 71 30 32 79 48 72 59 62 41
PCVBAIL PCVBAI	GCCINHEDTFTQNPQYIFEVEKPED ——EVLICIQQRPERSTREGEGENLAIGFDIYEVE——E—NEQYRHESL—QHEMASSIYINSRSVFLRTDQPECRYVIIPT 47 GCCTNREDTFLQRPQYIFTVPEDGH ——EVINSLQQEDLRTYRREGREDNYIIGFELFEVE——E—NERFRLHELYIQPEAGTSTYIDTRTVFLSEXLEKESYVLVFT 47 GCCTNREDTFLINPQYRLELLEEDD —DPDDSEV-ICSTLVALHQENERKDRELG —ASLFTIGFAIYEVPKEHEQRE—QHLQKDFFLYMASKARSKTYINHREVSQRFFLPPSEYVIVPS 55 GCCRNFLDTFWINPQYRLSLITERDE—GQEE——CSFLVALHQENERKERFG—ANVLTIGYAIYECP —DKD—EKLANDFFRHASKARSKTT INLREVSDRFKLPPGEYVIVPS 49 GCCRNYPATFWINPQYRLIKLEEDDE—DEDGES—GCSFVLALHQENERRERFGE—ENHITIGFGYYEVPELVSQPAVHLKRDFFLANASBARSEQFINLREVSTRFFLPPGEYVVPS 49 GCCRNYPHTFWINPQYRLIKLEEDDE—DEDGES—GCTFLVGLIQERRERRERFG—ENHITIGFGYYEVPEELSGQTNIHLSINFFLINRABERSDTFINLREVSLRFKLPPGEYYLVPS 49 GCCRNYPHTFWINPQYRLIKLEEDDE—DEDGES—GCTFLVGLIQERRERRERFG—GGHLSIGYAVYQIPKELESHTDAHLGRDFFLGROPSICSSTYNNIREVSSRVALPPGQYLVVPS 48 GCCRNYPHTFWINPQFKIHLDEVDEDQEEGTSEP—CCTVLLGLEOKNERRQERIG—QGHLSIGYAVYQIPKELESHTDAHLGRDFFLGROPSICSSTYNNIREVSSRVALPPGQYLVVPS 48 GCCRNN-SGFPSNPKFWLRVSEPSEVYIAVLQRSRLHAADKAGRARALWCDSHTSWSPASIPGRHYQAVGLHLMKVEKRRVNLPRVLSHPFWAGTACHAYDREVHLRCELSPGYYLAVPS 47 TFEPGHTGEPLLRVFTDVPSNCRELRLDEPPHT———————————————————————————————————	72 72 75 71 99 87 89 71 30 32 79 48 72 59 62 41
bearns	GCCINHEDTFORPOYIFEVERED	72 72 72 71 99 87 89 71 30 33 22 79 62 41 18 20 99
bearns	GCCINIKDITFQNPQYIFEVKKPED — EVLICIQQRPKRSTRREGKENLAIGFDIYKVE——E—NRQYRHISL—QHKAASSTYINGRSVFLRTDQFGGRYVIIFT 47 GCCYNRRDTFLQNPQYIFTVPEDGH — KVINSLQGRDLRTTRRHGRPDNYIIGFELFKVE——H-NRRFILHELIIQERAGTSTYIDTRTVFLSKYLKKGSYVLVFT 47 GCCYNRFDTFMYNPQYKLKLLEEDD—DPDDSEV-ICSFLVALHQKNRRKDRRIG-ASLFTIGFAIYEVPFEHIGGK—QHLQKDFFLANASKARSKYTINGREVSQRFKLPPSEVVIVES 57 GCCRNFDTFMYNPQYKIKLDEDDD-DDDSSSS—CCSFUALHQKNRRRGRRIG-ANVLIIGTAIYEVP—DED—HINKDFFTLANASKARSKYTINGREVSDRFKLPPGEYILVPS 49 GCCRNYPATFWANPQFKIRLDETDDPDDYGDRS—CCSFUALHQKNRRRGRRIG-EDHHTIGFGIYTEVPELMSQRAVHLRDEFTLANASKARSEQFTMLREVSTRFLPPGEYVVVPS 49 GCCRNYPATFWANPQFKIRLDEDDEDGES—CCTFLVGLIQKHRRRQRRIG-EDHHTIGFGIYTEVPELSGQTNIHLSNBFFLANASKARSEQFTMLREVSTRFLPPGEYVVVPS 49 GCCRNYPATFWANPQFKIRLDEDDEDGES—CCTFLVGLIQKHRRRQRRIG-EDHHTIGFGIYTEVPELSGQTNIHLSNBFFLANASKARSEQFTMLREVSSRVALPPGGYILVVPS 48 GCCRNYPATFWNPQFKIRLDEDDEDGESTSP—CCTVLLGLAQKNRRRQRRIG-QGHLSIGTAVYQIPFELESHTDAHLGRDFFLARAFTMLREVIARRKLPPGGYILVVPS 48 GCCRNN-SGFPSNRKFWLRVSEPSEVYIAVLQRSRLADANGRARALWGDSHTSNSPASIFGRHYQAWGLHLMKVERRVNLPRVLSHPPWAGTMLNATHREVIARGHLRELSPGYYLAVPS 47 COMBAIN III————DOMBIN IV Or T TEPEPGGEFFLLRVFTDVPSNCRELRLDEPPHT———————————————————————————————————	72 72 72 59 71 89 77 89 77 30 33 22 79 48 77 48 72 59 62 41 18 20 99 68
bcapis	GCCINIKDIFFQNPQYIFFVKEPED — EVLICIQQRPKRSTRRECKGENLAIGFDIYKVE—E—NRQYRHHSL—QHRAASSIYINSRSVFLRTDQPEGRYVIIFT 47 GCCTNRRDIFLQNPQYIFTVFEDGK — KVINSLQQRDLRTYRRECRPINYIIGFELFXVE—H—NRRFRLHHIVIQERAGTSTYIDTRTVFLSKYLKKGSYVLVET 47 GCCRRFPDTFMINPQYKLKLLEEDD—DPDDSEV-ICSFLVALMQKDRRKIDRILG—ASLFTIGFAITEVFRENGKE—QHLQKDFFLANASKARSKYTUNHREVSQRFLLPSSEVIVVES 55 GCCRRFPDTFMINPQYKLSLIEEDD—DPDDSEV-ICSFLVALMQKDRRKIDRILG—ASLFTIGFAITEVFRENGKE—QHLQKDFFLANASKARSKYTUNHREVSQRFLLPSSEVIVVES 54 GCCRRFPDTFMINPQYKLSLIEEDD—DPDDDYGRES—CCSFVLALMQKDRRKIERFG—NVLTIGFAITEVPELWQQPAVHLKRDFFLANASKARSKTYINHREVSRFKLPPGEYYLIVS 54 GCCRNYPNTFMINPQFKIRLDEEDDDDYGRES—CCSFVLALMQKDRRRCRRFG—ENHETIGFAITEVPELSQQPAVHLKRDFFLANASBARSDQFINLREVSTRFKLPPGEYYLIVS 54 GCCRNYPNTFMINPQFKIRLDEEDDE—DEEDGES—CCTVLICLMQKNRRQRRIG—EQHLTIGFAITEVPELSQQPAVHLKRDFFLANASBARSDQFINLREVSTRFKLPPGEYYLIVPS 48 GCCRNYPNTFMINPQFKIRLDEEDDE—DEEDGES—CCTVLICLMQKNRRQRRIG—QHLSIGFAVTQFVELFLESHTDAHLGRDFFLKRQPSTCSSTYNNLREVSSRVALPPGQYLVVES 48 GCCRNYPNTFMINPQFKIRLUSEPSEVYIAVLQRGRLRADMAGGRARALWGDSHTSNSPASIPGRIYQAVGLHLMKVEKRRVNLPRVLSHPVAGTACHAYDREVHLRCELSPGYYLAVPS 47 DOMAIN III — DOMAIN IV OK T TFEPGHTGEPLLRVFTDVPSNCRELRLDEPPHT — USSLCGYPQLVTQVHVLGAAGLKV—53 HFQHGRTSSFLLRIFSEAFVQLRELTLDHPRIS — USSLCGYPQLVTQVHVLGAAGLKV—53 HFQHGRTSSFLLRIFSEAFVQLRELTLDHPRIS — C—MRARGYFRVVTQTTVISABGLEKKY—53 TFEPRKEGDFVLRYFSEKRALEEQPNTISVURPVKKKKTRFIIFVSDRANSMKELGVDQESEEKKGKTSPDKQKQSPQPQSSDQESEQQQFRHIFKQLAGDDNEICADELKSVLAT 67 TFEPRKEGDFVLRYFSEKRALEEQPNTISVDRPVKKKKTRFIIFVSDRANSMKELGVDQESEEKKGKTSPDKQKQSPQPQSSDQESEQQQFRHIFKQLAGEDAHLSAFLQTILRR 55 TFEPRKEGDFVLRYFSEKRALAHLTGDAGVDLOLLP — E—F PKFTP —PDQETEDDGRRALFRQLAGEDAHLSAFLQTILRR 57 TFEPRKEGDFVLRYFSEKRALAHLTGDAGVDLOLLP — E—F PKFTP —PDQETEDDDGVRRLFRQLAGEDAHLSAFLQTILRR 57 TFEPRKEGDFVLRYFSEKRALAHLTGDAGVDLOLLATILLRDRNSRQ 61 TFEDRAGGFTLRVFSEKRALAHLTGDAGVDLOLLATILLRDRNSRQ 61 TFEDRAGGFTLRVFSEKRALAHLTGDAGVDLOLLASLTLRKGGFT 65 TFEPRKEGDFVLRYFSEKRALAHLTGDAGVDLOLLASLTLRKGGFT 65 TFEPRKEGDFVLRYFSEKRALEEQDFVLRYFAKLSQFTTGTAGTTDIFTILTQWSRR — FKFDQFTLGQVHLADDPSDCROLKSLTLRKGGFT 65 TFEPRKEGDFVLRYFSEKRALEEQDFVLRY	72 72 73 99 99 99 71 30 30 30 59 62 41 18 99 68 99 68 99
bcapis	GCCINIRDIFFORPOYIFEVRIPED ——EVLICIOORPERSTRRECKGENLAIGFDIYEVE—E—RQYRHISL—QHKAASSIYINSRSVFLRTDQPEGRYVIIFT 47 GCCYNROTFLORPOYIFTVPEDCH — KVINSLOQBOLRTYRRHGREDNYIIGFELEVE—H—RRRFRLHELYIQERMGTSYYIDTRIVFLSKTLIKGSYVLVF 47 GCCRNFDIFFWINPOYRLKLLEEDD—DPDDSEV-ICSFLVALHQRIRRKDRELG—ASLFTIGFAITEVERHEIGRE-QELQRDFFLINASKARSKTYINGREVSQRFALPSEYVLVPS 55 GCCRNFDIFFWINPOYRLKLLEEDD—DPDDSEV-ICSFLVALHQRIRRKREGLEASFT-PROPERTULES 47 GCCRNFLDIFFWINPOYRLKLLEEDD—DDOGDES-CCSFLVALHQRIRRGREGREG-DEBETGFAYYEVPPELWOOPAVELREDFFLANGSRASKTYINGREVSQRFALPSEYVLVPS 48 GCCRNFAITFWINPOYRLKLEEDD—DDOGDES-CCSFLVALHQRIRRGRERG-QELGRIFGAYYEVPPELWOOPAVELREDFFLANGSRASKTIFILBREVLSTRFLIPPGEYVLVPS 48 GCCRNFAITFWINPOYRLKLEEDD—DDOGDES-CCSFLVALHQRIRRGRERG-QELGRIFGAYYEVPPELWOOPAVELREDFFLANGSRASKTIFILBREVLARFLIPPGEYTLLVPS 48 GCCRNFAITFWINPOYRLKLEEDD—DEDGES-CCTVLICLIQRHRRGRENG-EDHHIGGITEVPELSOQTHILLSONFFLINRARERSDIFINLREVLARFLIPPGEYTLLVPS 49 GCCRNFAITFWINPOYRLHLDEVEDD—DEDGES-CCTVLICLIQRHRRGRERG-QELGIGTAVYQIFRLESSTDAHLGRDFFLARGRESDTFINLREVLARFLIPPGOYLLVPS 48 GCCRNN-SGFPSNPKFWLRVSEPSEVYLAVQRSRLHADWRGRARALWGDSHTSWSPASIPGKHYQAVGIHLMKVEKRRVNLPRVLSHPFWATMERVYNCHAPQOYLVVPS 48 GCCRNN-SGFPSNPKFWLRVSEPSEVYLAVQRSRLHADWRGRARALWGDSHTSWSPASIPGKHYQAVGIHLMKVEKRRVNLPRVLSHPFWATMACHAPAURCHLRCELSPGYYLLAVES GCCRNN-SGFPSNPKFWLRVSEPSEVYLAVQRSRLHADWRGRARALWGDSHTSWSPASIPGKHYQAVGIHLMKVEKRRVNLPRVLSHPFWATMACHAPAURCHLRCELSPGYYLLAVES GCCRNN-SGFPSNPKFWLRVSEPSEVYLAVQRSRLHADWRGRARALWGDSHTSWSPASIPGKHYQAVGIHLMKVEKRRVNLPRVLSHPFWATACHAPAURCHLRCELSPGYYLLAVES GCCRNN-SGFPSNPKFWLRVSEPSEVYLAVQRSRLHADWRGRARALWGDSHTSWSPASIPGKHYQAVGIHLMKVEKRRVNLPRVLSHPFWATACHAPAURCHLRCELSPGYYLLAVES GCCRNN-SGFPSNPKFWLRVSEPSEVYLAVQRSRLHADWRGRARALWGDSHTSWSPASIPGKHYQAVGIHLMKVEKRRVNLPRULGHTHX 54 TTEPHQEDGEFILRVSSERRALJEBVTULDHPHSS- TTEPHQEDFFLARVSSERRALJEBVTULDHPHSS- TTEPHNCGOFFLIRFSERKAITHDEDGRAND- G-AALPAGEMGTYQLAGEDALGSAFLATHLINGTHILLR 54 TTEPHRCGOFFLIRWSSTORMUNDALGANILG TO STANGARM TO STANGARM THE STANGARM TO STANGARM THE STANGARM	72 72 73 73 73 73 73 73 74 75 75 76 76 77 76 77 76 77 76 77 76 77 76 77 77
bcapis	GCCINHRDIFFQRPQYIFEVREPD ——EVLICIQQRPKRSTRRECKGENLAIGFDIYKVE——E—RQYRMISL—QBKAASSIYINSRSVFLRTDQPEGRYVIIFT 47 GCCINNRDIFLQRRQYIFTVPEDGH — KVIMSLQQRDLRTYBREGRPDNYIIGFELFKVE——H—RGRFRLHELJIQERAGTSTYIDTRIVFLSKYLKKGSYVLVT 45 GCCRNFPDTFWINPQYRLKLLEEDD—DPDDSEV—ICSFLVALMQRDRRILGREGGEL—BLIFTGFAIYEVPREMEGRK—QBLQRDFFLANASKARSKYTIMGREVSQRFELPPSETVIVPS 55 GCCRNFLDIFWINPQYRLKLLEEDD—DPDDSEV—ICSFLVALMQRDRRILGREGGEL—BLIFTGFAIYEVPREMEGRK—QBLQRDFFLANASKARSKYTIMGREVSQRFELPPSETVLIVPS 48 GCCRNFPANFWINPQFKIRLDETDOPDDYGDRES—GCSFVLALMQRDRRILGREGGER—BURITGFAIYEVPSELWGQPAVHLKRDFFLANASKARSEQFIBLREVSTRFLPPGFYLVVPS 49 GCCRNFPANFWINPQFKIRLDETDOPDDYGDRES—GCSFVLALMQRDRRRRGRRG—EDHHTIGFGITEVPELSQTINLLGKNFFLINRARERSDFFIBLREVSTRFLPPGFYTLLVPS 48 GCCRNFPANFWHRDQFKIRLDETDOPDDYGDRES—GCSFVLALMQRDRRRRGRRG—EDHHTIGFGITEVPELSQTINLLGKNFFLINRARERSDFFIBLREVSTRFLPPGFYTLLVPS 48 GCCRNFPANFWHRDQFKIRLDETDOPDDYGDRES—GCSFVLALMGRDRRRRGRRG—GUBLSIGTAVVQIFRLESSTDAHLGRDFFLGRESTCSSTSMIRREVSTRFLPPGGFYLLVPS 48 GCCRNFPANFWHRDQFKIRLDETDOPDDYGDRES—CCTVLLGLAQRRRRGRRG—GUBLSIGTAVVQIFRLESSTDAHLGRDFFLGRESTCSSTSMIRREVSTRFLPPGGFYLLVPS 48 GCCRNFPANFWHRDQFKIRLDETDOPDDYGDRES—CCTVLLGLAQRRRRGRRG—CUBLSIGTAVVQIFRLESSTDAHLGRDFFTLGNEFTCSTSTSMIRREVSTRFLPPGGFYLLAVPS 49 GCCRNFPANFWHRDQFKIRLDETDOPDDYGDRES—CCTVLLGLAQRRRRGRRG—CUBLSIGTAVVQIFRLESSTDAHLGRDFFTLARESTTSMIRREVSTRFLPPGGFYLLAVPS 49 GCCRNFPANFWHRDQFKLRUFSERYLLARADRRGRRRALVGDSHTSMSPASIPGHAYQAVQIHLMEVERRVLAPPAMFARASTTSMIRREVSTRFLPPGGFYLLAVPS 49 GCCRNFPANFWHRDQFKLRUFSERYLLARADRRGRRRALVGDSHTSMSPASIPGHAYQAVQIHLMEVERRVLAPPAMFARATAPA 49 HPQGRTSFFLLRVFTDVPSACRELRLDBFRHS—— DDQVLSEEDLWFRLAFRQLAGEDRELABLERVY—53 HFPPREGGFYLRFFSERXATVELDOTQALATP HPQGRTSFFLLRVFTSCRVSLSAIRAVANNTTP——————————————————————————————————	72 72 73 73 73 73 73 73 73 73 73 73 73 73 73
bcapis	GCCINIKDIFFQNPQYIFFVKEPED — EVLICIQQRPKRSTRRECKGENLAIGFDIYKVE—E—NRQYRHHSL—QHRAASSIYINSRSVFLRTDQPEGRYVIIFT 47 GCCTNRRDIFLQNPQYIFTVFEDGK — KVINSLQQRDLRTYRRECRPINYIIGFELFXVE—H—NRRFRLHHIVIQERAGTSTYIDTRTVFLSKYLKKGSYVLVET 47 GCCRRFPDTFMINPQYKLKLLEEDD—DPDDSEV-ICSFLVALMQKDRRKIDRILG—ASLFTIGFAITEVFRENGKE—QHLQKDFFLANASKARSKYTUNHREVSQRFLLPSSEVIVVES 55 GCCRRFPDTFMINPQYKLSLIEEDD—DPDDSEV-ICSFLVALMQKDRRKIDRILG—ASLFTIGFAITEVFRENGKE—QHLQKDFFLANASKARSKYTUNHREVSQRFLLPSSEVIVVES 54 GCCRRFPDTFMINPQYKLSLIEEDD—DPDDDYGRES—CCSFVLALMQKDRRKIERFG—NVLTIGFAITEVPELWQQPAVHLKRDFFLANASKARSKTYINHREVSRFKLPPGEYYLIVS 54 GCCRNYPNTFMINPQFKIRLDEEDDDDYGRES—CCSFVLALMQKDRRRCRRFG—ENHETIGFAITEVPELSQQPAVHLKRDFFLANASBARSDQFINLREVSTRFKLPPGEYYLIVS 54 GCCRNYPNTFMINPQFKIRLDEEDDE—DEEDGES—CCTVLICLMQKNRRQRRIG—EQHLTIGFAITEVPELSQQPAVHLKRDFFLANASBARSDQFINLREVSTRFKLPPGEYYLIVPS 48 GCCRNYPNTFMINPQFKIRLDEEDDE—DEEDGES—CCTVLICLMQKNRRQRRIG—QHLSIGFAVTQFVELFLESHTDAHLGRDFFLKRQPSTCSSTYNNLREVSSRVALPPGQYLVVES 48 GCCRNYPNTFMINPQFKIRLUSEPSEVYIAVLQRGRLRADMAGGRARALWGDSHTSNSPASIPGRIYQAVGLHLMKVEKRRVNLPRVLSHPVAGTACHAYDREVHLRCELSPGYYLAVPS 47 DOMAIN III — DOMAIN IV OK T TFEPGHTGEPLLRVFTDVPSNCRELRLDEPPHT — USSLCGYPQLVTQVHVLGAAGLKV—53 HFQHGRTSSFLLRIFSEAFVQLRELTLDHPRIS — USSLCGYPQLVTQVHVLGAAGLKV—53 HFQHGRTSSFLLRIFSEAFVQLRELTLDHPRIS — C—MRARGYFRVVTQTTVISABGLEKKY—53 TFEPRKEGDFVLRYFSEKRALEEQPNTISVURPVKKKKTRFIIFVSDRANSMKELGVDQESEEKKGKTSPDKQKQSPQPQSSDQESEQQQFRHIFKQLAGDDNEICADELKSVLAT 67 TFEPRKEGDFVLRYFSEKRALEEQPNTISVDRPVKKKKTRFIIFVSDRANSMKELGVDQESEEKKGKTSPDKQKQSPQPQSSDQESEQQQFRHIFKQLAGEDAHLSAFLQTILRR 55 TFEPRKEGDFVLRYFSEKRALAHLTGDAGVDLOLLP — E—F PKFTP —PDQETEDDGRRALFRQLAGEDAHLSAFLQTILRR 57 TFEPRKEGDFVLRYFSEKRALAHLTGDAGVDLOLLP — E—F PKFTP —PDQETEDDDGVRRLFRQLAGEDAHLSAFLQTILRR 57 TFEPRKEGDFVLRYFSEKRALAHLTGDAGVDLOLLATILLRDRNSRQ 61 TFEDRAGGFTLRVFSEKRALAHLTGDAGVDLOLLATILLRDRNSRQ 61 TFEDRAGGFTLRVFSEKRALAHLTGDAGVDLOLLASLTLRKGGFT 65 TFEPRKEGDFVLRYFSEKRALAHLTGDAGVDLOLLASLTLRKGGFT 65 TFEPRKEGDFVLRYFSEKRALEEQDFVLRYFAKLSQFTTGTAGTTDIFTILTQWSRR — FKFDQFTLGQVHLADDPSDCROLKSLTLRKGGFT 65 TFEPRKEGDFVLRYFSEKRALEEQDFVLRY	72 72 73 73 73 73 73 73 73 73 73 73 73 73 73
bcapis	GCCINHRDIFFQRPQYIFEVREPD ——EVLICIQQRPKRSTRRECKGENLAIGFDIYKVE——E—RQYRMISL—QBKAASSIYINSRSVFLRTDQPEGRYVIIFT 47 GCCINNRDIFLQRRQYIFTVPEDGH — KVIMSLQQRDLRTYBREGRPDNYIIGFELFKVE——H—RGRFRLHELJIQERAGTSTYIDTRIVFLSKYLKKGSYVLVT 45 GCCRNFPDTFWINPQYRLKLLEEDD—DPDDSEV—ICSFLVALMQRDRRILGREGGEL—BLIFTGFAIYEVPREMEGRK—QBLQRDFFLANASKARSKYTIMGREVSQRFELPPSETVIVPS 55 GCCRNFLDIFWINPQYRLKLLEEDD—DPDDSEV—ICSFLVALMQRDRRILGREGGEL—BLIFTGFAIYEVPREMEGRK—QBLQRDFFLANASKARSKYTIMGREVSQRFELPPSETVLIVPS 48 GCCRNFPANFWINPQFKIRLDETDOPDDYGDRES—GCSFVLALMQRDRRILGREGGER—BURITGFAIYEVPSELWGQPAVHLKRDFFLANASKARSEQFIBLREVSTRFLPPGFYLVVPS 49 GCCRNFPANFWINPQFKIRLDETDOPDDYGDRES—GCSFVLALMQRDRRRRGRRG—EDHHTIGFGITEVPELSQTINLLGKNFFLINRARERSDFFIBLREVSTRFLPPGFYTLLVPS 48 GCCRNFPANFWHRDQFKIRLDETDOPDDYGDRES—GCSFVLALMQRDRRRRGRRG—EDHHTIGFGITEVPELSQTINLLGKNFFLINRARERSDFFIBLREVSTRFLPPGFYTLLVPS 48 GCCRNFPANFWHRDQFKIRLDETDOPDDYGDRES—GCSFVLALMGRDRRRRGRRG—GUBLSIGTAVVQIFRLESSTDAHLGRDFFLGRESTCSSTSMIRREVSTRFLPPGGFYLLVPS 48 GCCRNFPANFWHRDQFKIRLDETDOPDDYGDRES—CCTVLLGLAQRRRRGRRG—GUBLSIGTAVVQIFRLESSTDAHLGRDFFLGRESTCSSTSMIRREVSTRFLPPGGFYLLVPS 48 GCCRNFPANFWHRDQFKIRLDETDOPDDYGDRES—CCTVLLGLAQRRRRGRRG—CUBLSIGTAVVQIFRLESSTDAHLGRDFFTLGNEFTCSTSTSMIRREVSTRFLPPGGFYLLAVPS 49 GCCRNFPANFWHRDQFKIRLDETDOPDDYGDRES—CCTVLLGLAQRRRRGRRG—CUBLSIGTAVVQIFRLESSTDAHLGRDFFTLARESTTSMIRREVSTRFLPPGGFYLLAVPS 49 GCCRNFPANFWHRDQFKLRUFSERYLLARADRRGRRRALVGDSHTSMSPASIPGHAYQAVQIHLMEVERRVLAPPAMFARASTTSMIRREVSTRFLPPGGFYLLAVPS 49 GCCRNFPANFWHRDQFKLRUFSERYLLARADRRGRRRALVGDSHTSMSPASIPGHAYQAVQIHLMEVERRVLAPPAMFARATAPA 49 HPQGRTSFFLLRVFTDVPSACRELRLDBFRHS—— DDQVLSEEDLWFRLAFRQLAGEDRELABLERVY—53 HFPPREGGFYLRFFSERXATVELDOTQALATP HPQGRTSFFLLRVFTSCRVSLSAIRAVANNTTP——————————————————————————————————	72 72 73 73 73 73 73 73 73 73 73 73 73 73 73
bcapis	GCCINIKDITFQNPQYIFEVKKFED——EVLICIQQRPERSTREDEGEBLAIGFDIYKVE——E.—NEQYRHISL—QBEMASIYINSRSVFLRTDQFEGRYVIIFT 47 GCCINNEDITLQRPQYIFTVFEDGE——KVIHSLQRDLRTYREGGPRYIIGFELFVE——M.—NERFELLBELTIQERAGTSTTIDITRVFLSKTLKKGSTVLVFT 47 GCCRRFEDITWINPQYRLKLLEEDD—DEDDSEV-ICSELVALMQROKRIDGRIG—ASLFTIGFAIYEVFRENGENC-QBLQRDFTLYRASARASIT DHIREVSDRFLPPSEVILVES 55 GCCRRFEDITWINPQPYRLKLLEEDD—DEDDSES-CCSIVALMQROKRIDGRENG-ANULTIGFAITECP—DAD—EHLKNOFFIRMASBARSET DHIREVSDRFLPPSEVILVES 54 GCCRNTPATTWINPQFYRLLDETDDPDDVGDRES-CCSIVALMQROKRREREGG-RUBETIGFAIYEVFRENGQRAVHLKROFFILMASBARSEQFILMEVSTRFLPPGEVILVES 49 GCCRNTPATTWINPQFYRLHLDEVDDQDEGES-CCSIVALMQROKRRERGREGG-COMLSIGTAVYOFFILESOFFILMESARSTRIBLREVSTRVALPPGGYLLVVES 49 GCCRNTPATTWINPQFYRHLDEVDDQDEGES-CCSIVALMQROKRRERGREGG-COMLSIGTAVYOFFILESOFFILMESARSTRIBLREVSSRVALPPGGYLLVVES 49 GCCRNTS-SGFFSNERFMLRVSESEVYILAVQRSRLERADBARGARALVGDSHTSWSPASTFGKNYQAVGIRLMKVEKRRVALPPVLSKRSTRSVSSRVALPPGGYLLVVES 49 GCCRNS-SGFFSNERFMLRVSESESVYILAVQRSRLERADBARGARALVGDSHTSWSPASTFGKNYQAVGIRLMKVEKRRVALPPVLSKRSTRANDREVHLRCLSSFGYTLAVG GCCRNS-SGFFSNERFMLRVSESEVYILAVQRSRLERADBARGARALVGDSHTSWSPASTFGKNYQAVGIRLMKVEKRRVALPPVLSKRSTRANDREVHLRCLSSFGYTLAVG GCCRNS-SGFFSNERFMLRVSESEVYILAVQRSRLERADBARGARALVGDSHTSWSPASTFGKNYQAVGIRLMKVEKRRVALPRVLSKPFVASTACHAVDREVHLRCLSSFGYTLAVG GCCRNS-SGFFSNERFMLRVSESEVYILAVQRSRLERADBARGARALVGDSHTSWSPASTFGKNYQAVGIRLMKVEKRRVALPRVLSKPFVASTACHAVDREVHLRCLSSFGYTLAVG GCCRNS-SGFFSNERFMLRVSESEVYILAVQRSRLERADBARGARALVGDSHTSWSPASTFGKNYQAVGIRLMKVEKRRVALPRVLSKPFVASTACHAVDREVHLRCLSSFGYTLAND GCCRNS-SGFFSNERFMLRVSESEVYILAVGRSRLERADBARGARALVGDSHTSWSPASTFGKNYQAVGLIRLMKVEKRRVALPRVLSSFGRAGARTVALTAGTTAVAGENERFTATTAVAGENERFTATTAVAGENTATATATATATATATATATATATATATATATATATATA	72 72 73 73 73 73 73 73 73 73 73 73 73 73 73
bcapis	GCCINKIDTF(NRQYIFEVKIPED — EVILCIQQRPESTREDEKGENLAIGFDIYIVE — E — NRQYRHISL — QHKAASSIYINSRSVFLRTDQPEGRYVIIFT 47 GCCINREDIFLYREQUIFTYPEDGG — KVIHSLQQRDLRTYRRIGGRONYILGFELFIVE — K — KRIRFILHELTIQEMISTYDDRIVFLSKTLAKGSVVLVF1 47 GCCINREDIFLYNRQYRLKILEEDD — DEDGES— CCSTVALKQRRRRILBRIG — ANLITGTAITEC P — DRD — EKLIKOFFRIASSARSTYTURGEVSGRFLLPSETVLVFS 55 GCCRRFDIFMINGQFILKILEEDDDDDVGDRES — CCSTVALKQRRRRILBRIG — ANLITGTAITEC P — DRD — EKLIKOFFRIASSARSTYTURGEVSGRFLLPSETVLVFS 54 GCCRRFDIFMINGQFILKILEEDDDDDVGDRES — CCSTVLALKQRRRRRRRHG — ROBETTGGTIVEVPELNGQRHLKRDFTHANSGRRSDFTMLREVSTRFKLPGEVTUVPS 49 GCCRRFTAITFWRNGQFILKILEEDDD — DEDGES— GCTFULALIGKRRRRRRHG — DEDHTIGGTIVEVPELNGQRHLKRDFTHANSGRRSDFTMLREVSTRFKLPGEVTUVPS 49 GCCRRFTAITFWRNGQFILKILEEDDE — DEDGES— GCTFULALIGKRRRRRRHG — DEDHTIGGTIVEVPELNGQRHLKRDFTLANGRSINTSTHRREVSTRFKLPGEVTUVPS 49 GCCRRFSORFWLRVSEPSEVYLAVQRSRLHAADKAGRARALAGDHTSWSPASTYGRHYQAVGIRLMRVERRRULGRFFLGAGGSTCSTVIRAGESTRILBEPGSTVLAVFS 47 DOMAÍN III — DOMAÍN IV O' T TFEPGHTGEPLLRVFTDVSSNCRELRIDEPPHT — C — MESLICGYQLVTQVRVLGAAGLKD — 51 HFDRGRTSEPLLRIFSEAPVQLRELTLDHFRHS — E — P — PRITTE — DEDWTSSKRALSEVERYTHELY SAFETLALLEED THE TOTAL	72 72 73 73 73 73 73 73 73 73 73 73 73 73 73
bcapis	GCCINKIDITFQRPQYIFFVKXPED — EVLICIQQRPKRSTRREGGENIAIGDIYIVE—E—NEQYRHISIA—QEKAASTYINSRSVFLRTDQPEGRYVIIPT 47 GCCTRREDTFQRPQYIFTVPEDCH — KVIMSLQCEDLRTYRHGRPONYLIGFELFKVE—H MERFELHHIJGERAGTSTYIDITRVFLSKYLLKGSSVVLVIIPT 47 GCCTRREDTFMINDGVILSLIEEDD—DEDDSEV—ICSFLVALAGGERREGREGA—SIFTIGFATYEVPREHEGK-OHLQKDFFLYNSKARSKYTJRHGEVSQRFRLPPSEVIVYPS 59 GCCRRFDTFMINDGVILSLIEEDD—DEDDSEV—ICSFLVALAGGERREGREGA—BETTGFATYEVPREHEGK-OHLQKDFFLYNSKARSKYTJRHGEVSQRFRLPPSEVIVYPS 49 GCCRRFDTFMINDGVILSLEEDD—DEDDSES—GCSFVLALAGGERREGREGA—BURTGFATYEVPPELVGQPAVILKADFFLHARSRASSET INLREVSDRFLPPGEVILLYS 47 GCCRRFDTFMINDGVILLBEEDD—DEDGES—GCSFVLALAGGERREGREGA—BURTGFATYEVPPELVGQPAVILKADFFLHARSRASSET INLREVSDRFLPPGEVILLYS 49 GCCRRFJTFMINDGVILLBEEDD—DEDGES—GCTFVLGLIGHRREGREGA—BURTGFITTSVERSQTHIHLISMFFLHARSRASSET INLREVSTRFLPGGEVILVYS 49 GCCRRFJTFMINDGVILLBEEDD—DEDGES—GCTFVLGLIGHRREGREGA—GUBLIGFAVYQIPPELESSTDAHLGDDFFLRARSBUT INLREVSTRFLPGGEVILVYS 49 GCCRRFJTFMINDGVILLBEEDD—DEDGES—GCTFVLGLIGHRREGREGA—GUBLIGFAVYQIPPELESSTDAHLGDDFFLRARSTREUDFRUKSSKRILPFQGVILVYS 49 GCCRRFJTFMINDGVILLBEEDD—DEDGES—GCTFVLGLIGHRREGREGA—GUBLIGFAVYQIPPELESSTDAHLGDDFFLRARSTREUDFRUKSSKRILPFQGVILVYS 49 GCCRRFJTFMINDGVILLBEEDD—DEDGES—GCTFVLGLIGHRREGREGA—GUBLIGFAVYQIPPELESSTDAHLGDDFFLARGFITHREGSTSSTRILBEVSSKRILPFQGVILVYS 49 GCCRRFJTFMINDGVILLBETD—DEDGES—GCTFVLGLIGHRAGREGREGA—GUBLIGFAVYQIPPELESSTDAHLGDDFFLARGERSTREURSSKRILPFQTILLWS 49 GCCRRFJTFTTHREGREGA——DEDGES—GCTFVLARGERSTREURSSKRILPFQTILLWS 49 HEPGRITTEFTALTSCRAVQLARGERSTREURSSKRILPFQTFLARGERST	72 72 73 73 73 73 73 73 73 73 73 73 73 73 73
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bcapis	GCCINIEDTFORPQTIFTVREED——EVLICIOORPERSTREGGENLAIGFDIYEVE——H—REQYRHISL—QEKAASSIYINSSSYFLRTDQFEGRYVIIPT 47 GCCINRUTTLQREQYTIFTVPEDGR——NVIBSLOGUELATTREGGENLAIGFDIYEVE——H—REPRIMENT QEMATSTYDIRTVFLSSTLEKGSVVINPT 47 GCCINRUTTLQREQYTIFTVPEDGR——DDDDSSV—ICSPLVALEQUERREDREGGENLAFTGFATTVPERHEGGENC—GELOGFFLIANGGARSTYTHREFUSSTTYRHEFUSSTUPPT 57 GCCINRUTTVHTREQTELISLITEODE—QCE——CSFLVALEQUERREDREGGENLARGE —ANVLICIALTECP—DDD—EUROPFFLIANGGARSTSTTYRHEFUSSTERIPPGEVILIPS 47 GCCINFUTTWHTREQTELISLITEODE—GCE——CSFLVALEQUERREGREGGENLARGE —ANVLICIALTECP—DDD—EUROPFFLIANGGARSTSTTYRHEFUSSTERIPPGEVILIPS 47 GCCINFUTTWHTREGRYCHLIKEEDE—DEDGES—CCTIVALIQUERRERGREGGENLARGE —ANVLICIALTECP—DDD—EUROPFFLIANGGARSTOD FLANGGARSTOD FLANGGARSTOD FLANGGARSTOD FLANGGARSTOD FLANGGARSTOD FLANGGARSTOD FLANGGARSTOT FLANGGARSTOD FLANGGARSTOD FLANGGARSTOD FLANGGARSTOD FLANGGARSTOT FLANGGARST	72 72 73 73 73 73 73 73 73 73 73 73 73 73 73
bcapis	GCCINEDITFORDQYIFEVEXED——EVLICIOORPERSTREGGENLAIGFDIYEVE——H. REQYEMESL—QEKAASSIYINSSSYFLRTDQFEGRIVITE 4 GCCINEDITFORDQYIFTVFEDGR——KVHSLOQUEATTEREGRENNYIIGFELFEVE——H. RERFELMELTIQEMESTTIDITTVFLSSTLEKGSYUVET 4 GCCINEDITFORDQYILSTEEDG—OGE——CSTUALEQUERREDELG—ALSTFIGATIVENFERGGR—QELORFFUNASCASSITYINREVSORFELPPSETVIPS 5 GCCRIPTOTFWINDQYILSTEEDG—OGE——CSTUALEQUERREDELG—ALSTFIGATIVENFERGGR—QELORFFUNASCASSITYINREVSORFELPPSETVIPS 5 GCCRIPTOTFWINDQYILSTEEDG—OGE——CSTUALEQUERREDELG—ANUTTGYAIYDPPLWOOPAVILLEDGE PLANGERSITYINREVSORFELPPSETVIPS 5 GCCRIPTOTFWINDQYILSTEEDG—OGE—CSTUALEQUERREDELG—ANUTTGYAIYDPPLWOOPAVILLEDGE PLANGERSITYINREVSORFELPPSETVIVPS 49 GCCRIPTOTFWINDQYILSTEEDG—OGE—CSTUALEQUERRERGERG—CRUEITGFATIVENPELSOQTNIHLSINFFILIRABESITTHLERUTARFILIPPSETILIPS 4 GCCRIPTOTFWINDQYSTEEDGE—OGE—CTVLLCLIQUERRERGRIG—COLLIGIANYQIPVELSOGTNIHLSINFFILIRABESITTHLERUTARFILIPPSETILIPS 4 GCCRIPTOTFWINDQYSTEELDSEDDIQEEGS—CTVLLCLIQUERRERGRIG—CGULSIGTANYQIPVELSSTUALERUSARSESTTHLERUTARFILIPPSETILIPS 4 GCCRIPTOTFWINDQYSTEELDSEDDIQEEGTSEP—CCTVLLCLIQUERRERGRIG—CGULSIGTANYQIPVELSSTUALERUSARSESTITHLERUTARFILIPPSETILIPS 4 GCCRIPTOTFWINDQYSTEELDSEDDIQUETTIVERSURAPPSETILIPS 4 GCCRIPTOTFWINDQYSTEELDSEDGES—CCTVLLCLIQUERRERGRIG—CGULSIGTANYQIPVELSSTUALERUSARSESTITHLERUTARFILIPPSITATIVERSURAPPSITATIVERSUR	72 72 73 73 73 73 73 73 73 73 73 73 73 73 73

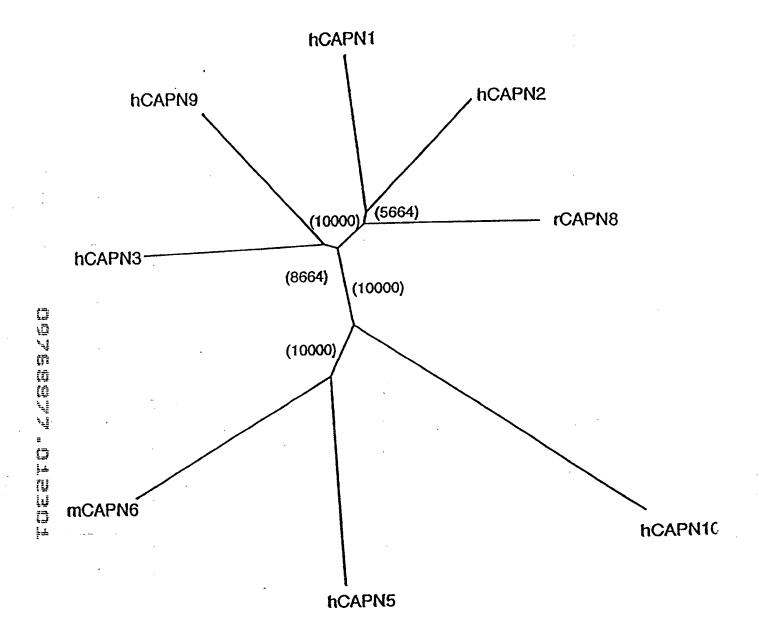
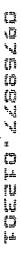


FIG. 6



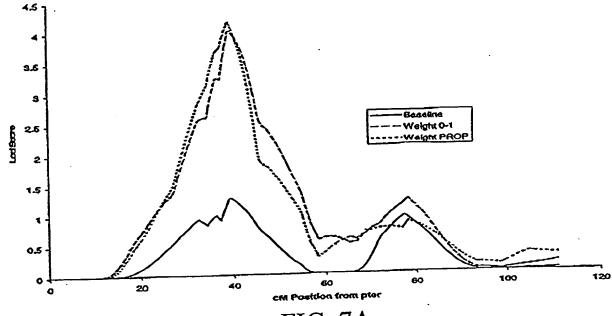


FIG. 7A

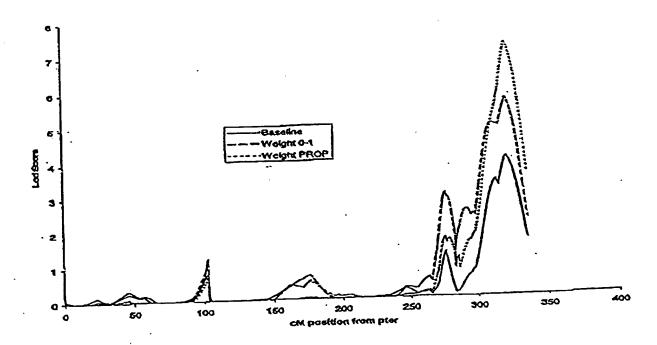
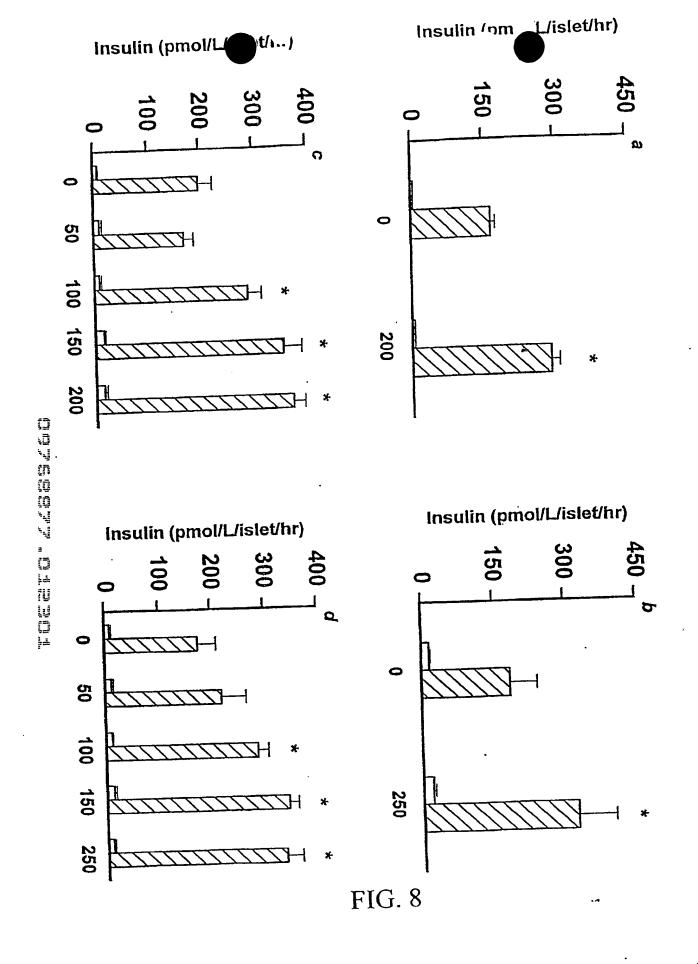
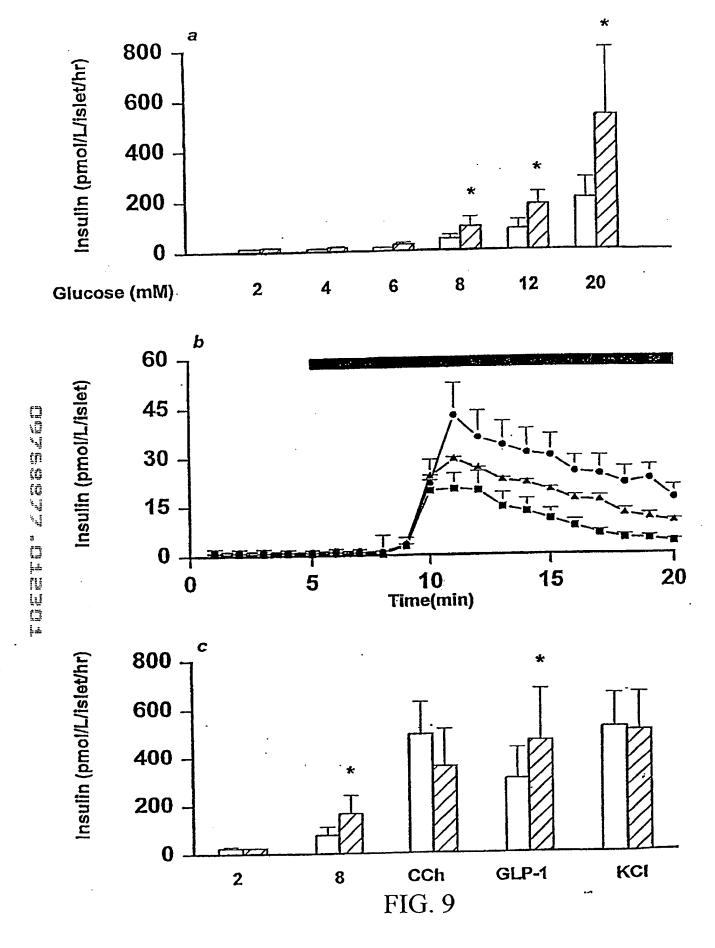


FIG. 7B





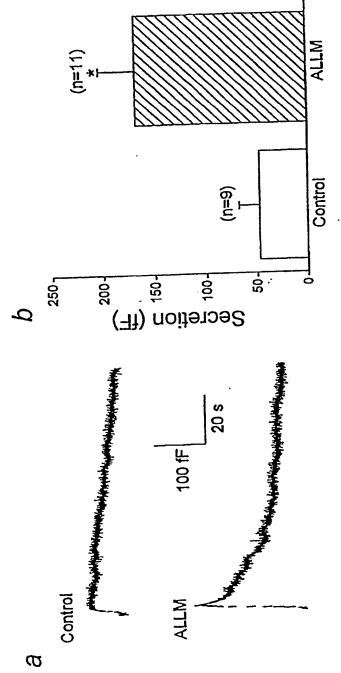
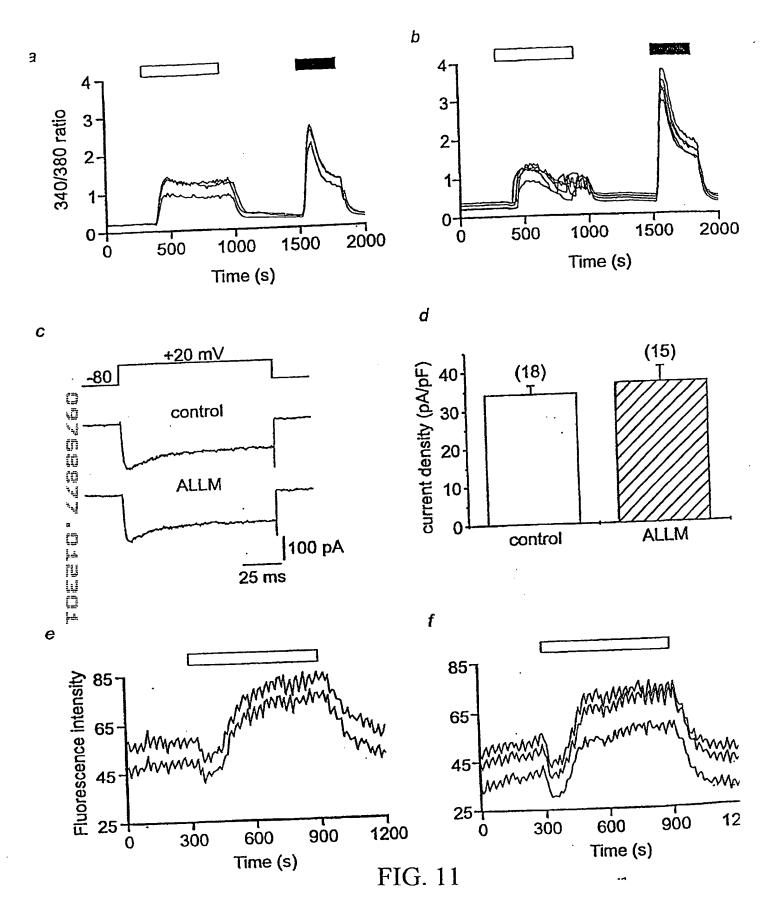
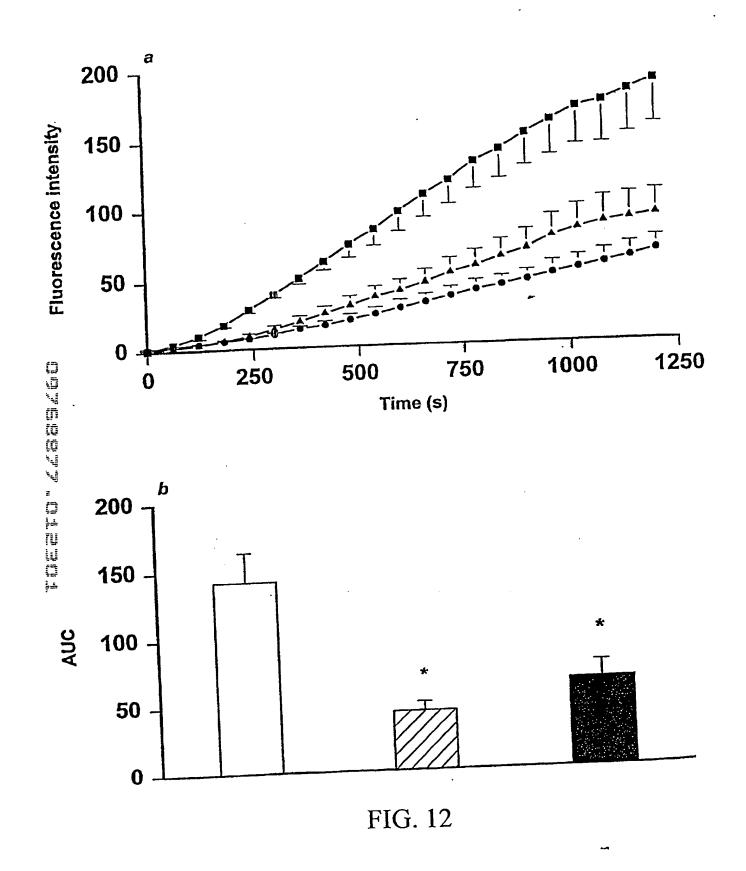


FIG. 10





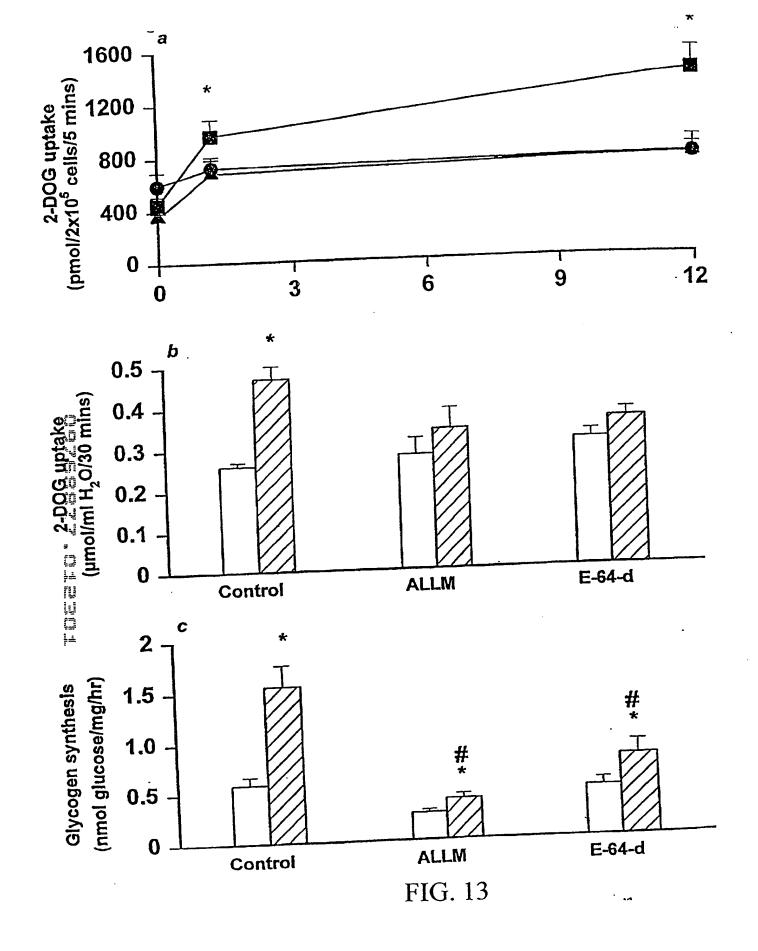


Fig14 Effect of 48 hours exposure of islets to calpain inhibitors on insulin secretion

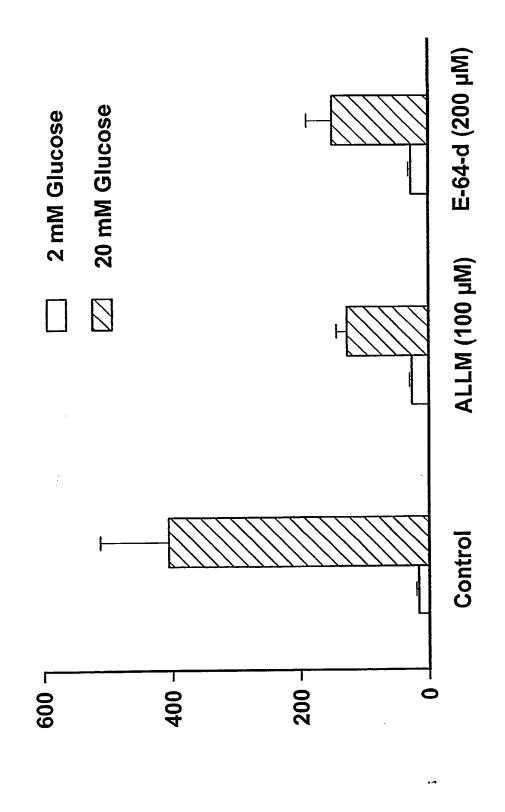


Fig 15 Insulin content in 48 hour cultured islets (n=4)

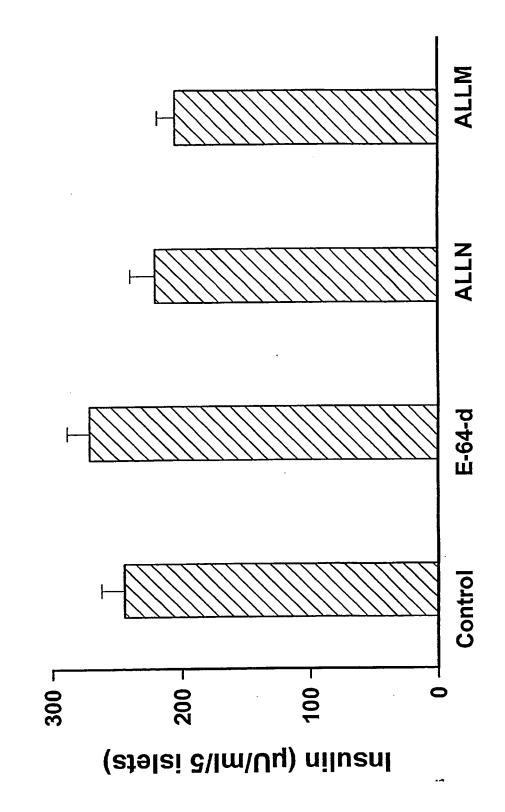
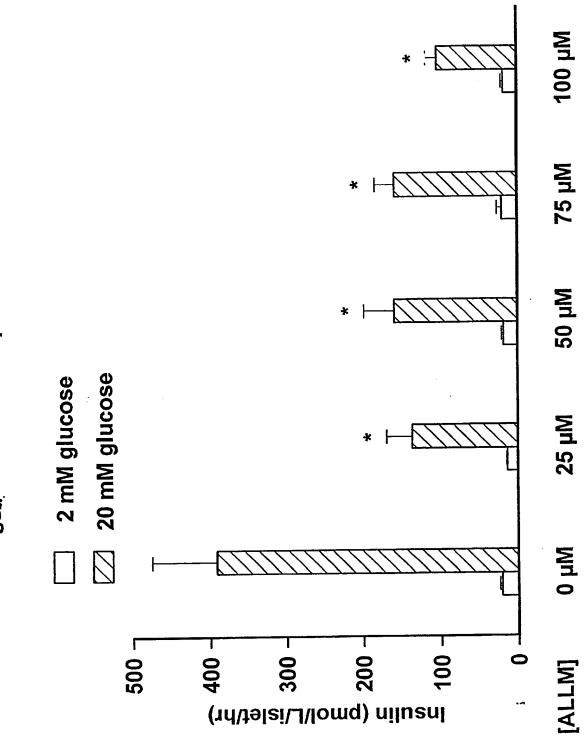
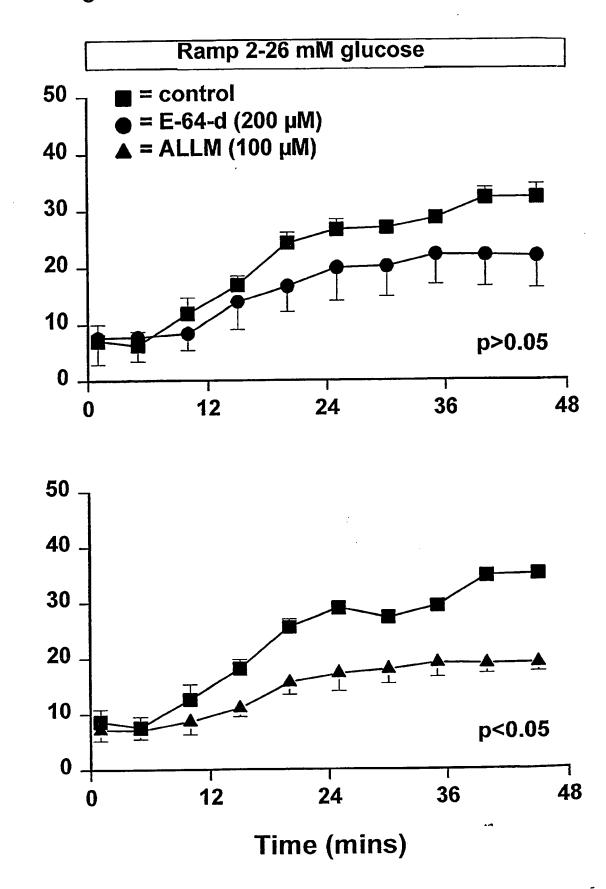
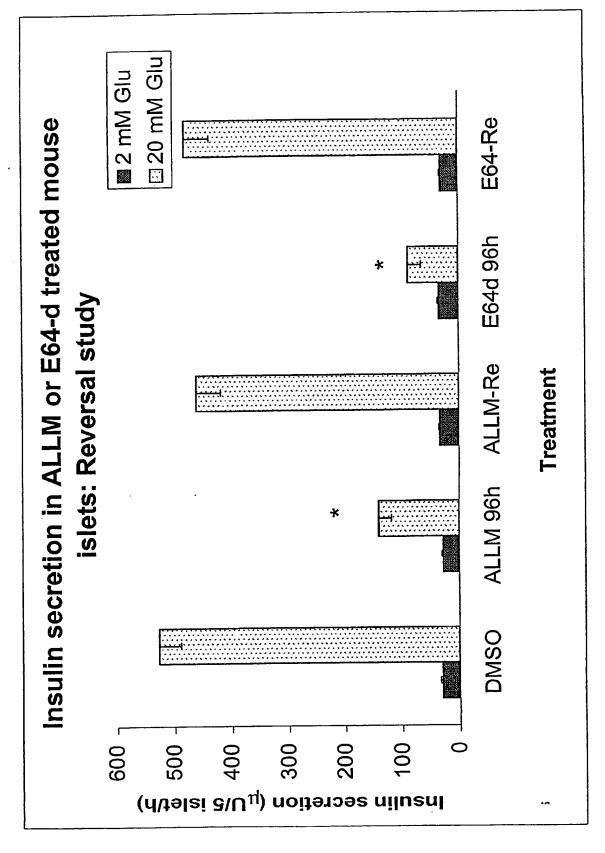


Fig16ALLM dose response in 48 hour treated islets

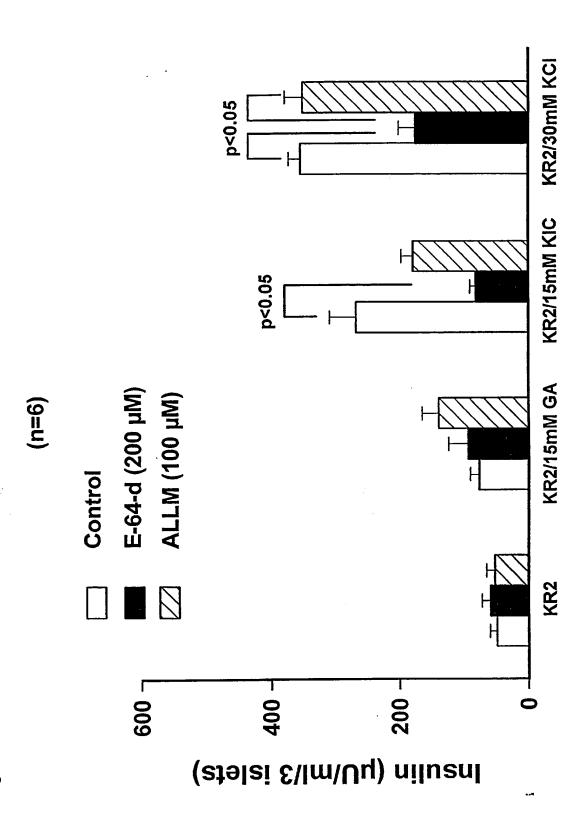


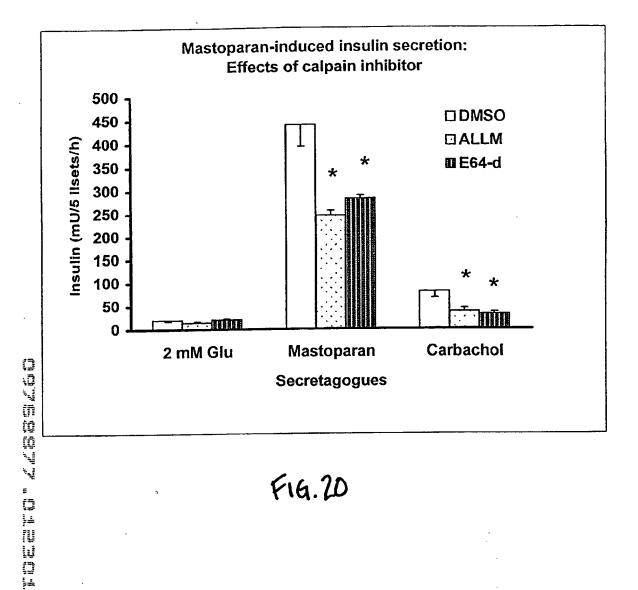


Insulin (µU/ml/50 islets)



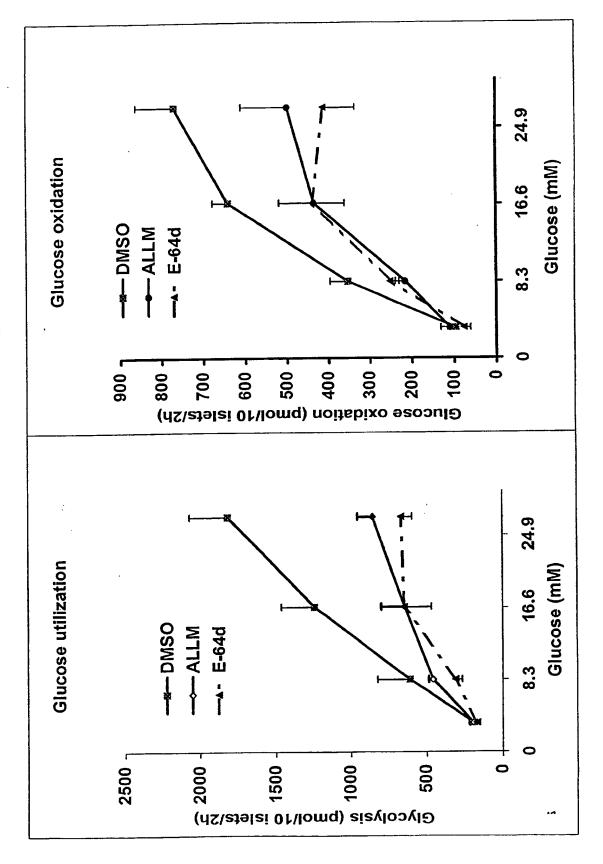
F1a. 18



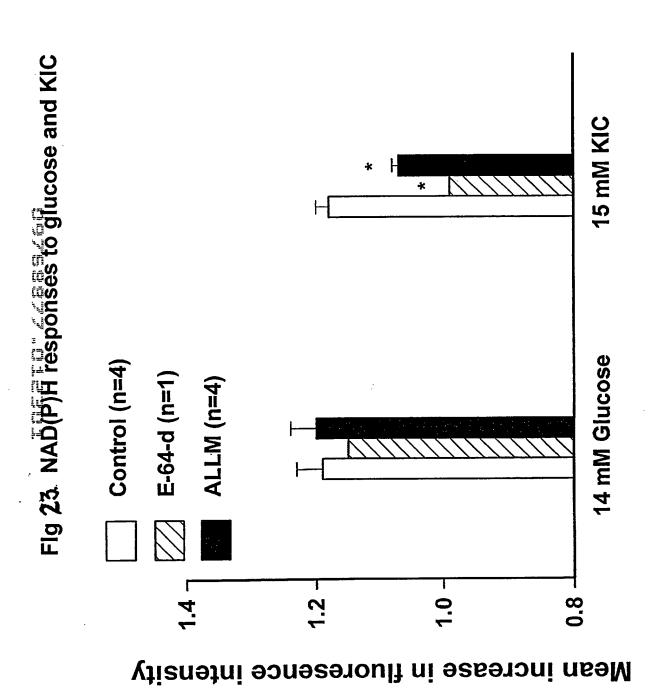


F14.20

Fig21. [responses to gluce emic and KCI Control (n=5) E-64-d (n=2) ALLM (n=5) **500** 400 **300** 200 100 Time to 1/2 max response (s) 0 15 mM KIC 30 mM KCI 14 mM Glucose **500** 400 300 200 100 0 30 mM KCI 15 mM KIC 14 mM Glucose



F16.22



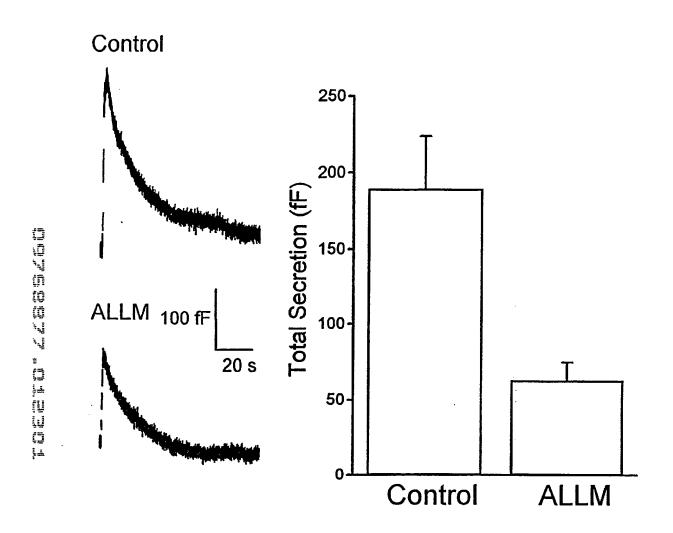
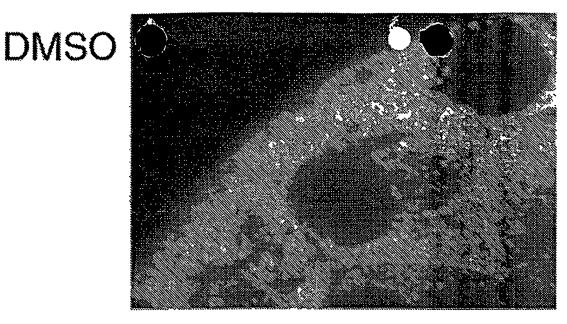
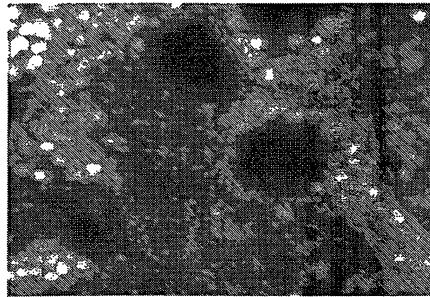


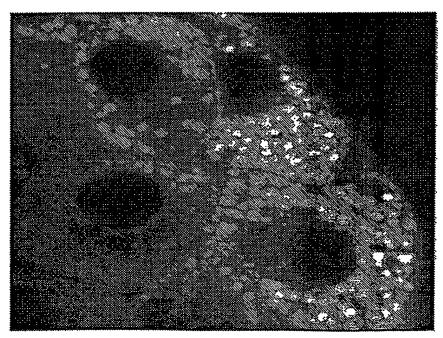
Fig. 24. Measurement of membrane capacitance in isolated β -cells



E64d

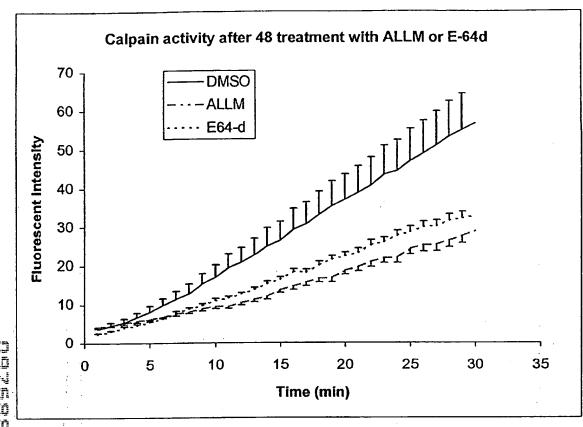


ALLM



F14.25





F16.26